

In the Claims

9. (Previously Presented) A method for securely anchoring a barrier layer to a substrate in a printhead comprising:

forming at least one extending metallic anchor member supported by a substrate having a fluid ejector thereon; and

covering said anchor member with a layer of at least one fluid barrier material, said anchor member securely attaching said layer of fluid barrier material to said substrate.

10. (Previously Presented) The method of claim 9 wherein said anchor member is comprised of a metal selected from the group consisting of tantalum, aluminum, rhodium, chromium, titanium, molybdenum, and mixtures thereof.

11. (Previously Presented) The method of claim 9 wherein said anchor member has a thickness of about 0.3 – 1.0 μm .

13. (Previously Presented) A method for securely anchoring a barrier layer to a substrate in a printhead comprising:

applying at least one layer comprised of metal to a substrate having a fluid ejector;
forming, with said layer, at least one extending metallic anchor member; and
covering said anchor member with a layer of at least one fluid barrier material, said anchor member securely attaching said ink barrier material to said substrate.

20. (Previously Presented) A method of forming a fluid ejection device comprising:

disposing a mechanical intercoupling structure on a substrate at least one fluid ejector thereon;

disposing a chamber layer over said substrate, wherein side walls of an ejection chamber are defined with the chamber layer;

substantially embedding said mechanical intercoupling structure with the chamber layer;
and

encapsulating the mechanical intercoupling structure with the substrate and the chamber

layer.

21. (Previously Presented) The method of claim 20, wherein said mechanical intercoupling structure secures said chamber layer to said substrate.

22. (Previously Presented) The method of claim 20, wherein said mechanical intercoupling structure is comprised of a metal.

23. (Currently Amended) The method of claim 22, wherein said mechanical intercoupling structure includes at least one of the metals tantalum, aluminum, rhodium, chromium, titanium, ~~molybdenum~~ molybdenum, tungsten, platinum, and palladium.

24. (Previously Presented) The method of claim 20, wherein said chamber layer covers a conductive trace, wherein said chamber layer is a fluid barrier that substantially hinders interaction of a fluid with said conductive trace.

25. (Previously Presented) The method of claim 20, wherein said chamber layer comprises an electrically insulative material.

26. (Previously Presented) The method of claim 20, wherein said chamber layer comprises a polymer.

27. (Previously Presented) The method of claim 20, wherein said mechanical intercoupling structure is substantially hour-glass shaped in that the structure has top and bottom surfaces, and a narrowed portion therebetween.

28. (Previously Presented) The method of claim 20, wherein said mechanical intercoupling structure includes a concave side wall.

29. (Previously Presented) The method of claim 20, wherein said concave side wall is curved.

30. (Previously Presented) The method of claim 20, wherein said mechanical intercoupling structure includes: a top surface defining a top surface width; a bottom surface; and a central portion between the top surface and the bottom surface defining a width that is less than the top surface width.

31. (Previously Presented) A method of coupling a barrier layer to a substrate of a fluid ejection device comprising:

- positioning at least one metallic anchor member on a substrate;
- positioning a layer of barrier material over the substrate and the at least one metallic anchor member;
- substantially embedding said at least one metallic anchor member with the layer of barrier material; and
- encapsulating the at least one metallic anchor member with the substrate and the barrier layer.

32. (Previously Presented) The method of claim 31, wherein said metallic anchor member secures said layer of barrier material to said substrate.

33. (Previously Presented) The method of claim 31, wherein said metallic anchor member further includes:

- a first metal layer disposed on a portion of said substrate; and
- a second metal layer disposed on at least a portion of said first metal layer, and wherein said second metal layer is different from said first metal layer.

34. (Previously Presented) The method of claim 33, wherein said metallic anchor member is substantially hour-glass shaped in that the structure has top and bottom surfaces, and a narrowed portion therebetween.

35. (Previously Presented) The method of claim 31, wherein said metallic anchor member includes a concave side wall.

36. (Previously Presented) The method of claim 35, wherein said concave side wall is curved.
37. (Previously Presented) The method of claim 31, wherein said metallic anchor member includes:
- a top surface defining a top surface width;
 - a bottom surface; and
 - a central portion between the top surface and the bottom surface defining a width that is less than the top surface width.
38. (Currently Amended) A method of forming a fluid ejection cartridge comprising:
- fluidically ~~coupled~~ coupling a fluid reservoir with a fluid ejection device, wherein the fluid ejection device has a substrate having at least one fluid ejector thereon, a mechanical intercoupling structure disposed on said substrate, and a firing chamber layer disposed on said substrate and defining side walls of a firing chamber; and
 - substantially embedding said mechanical intercoupling structure into the firing chamber layer; and
 - encapsulating the mechanical intercoupling structure with the substrate and the firing chamber layer.
39. (Previously Presented) The method of claim 38, wherein said mechanical intercoupling structure secures said firing chamber layer to said substrate.
40. (Previously Presented) The method of claim 38, wherein said mechanical intercoupling structure is comprised of a metal.
41. (Previously Presented) The method of claim 38, wherein said mechanical intercoupling structure includes: a first metal layer disposed on a portion of said substrate; and a second metal layer disposed on at least a portion of said first metal layer, and wherein said second metal layer is different from said first metal layer.

42. (Previously Presented) The method of claim 38, wherein said mechanical intercoupling structure is substantially hour-glass shaped in that the structure has top and bottom surfaces, and a narrowed portion therebetween.

43. (Previously Presented) The method of claim 42, wherein said mechanical intercoupling structure includes a concave side wall.

44. (Previously Presented) The method of claim 43, wherein said concave side wall is curved.

45. (Currently Amended) A method of coupling a barrier layer to a substrate of a fluid ejection device comprising:

forming a fluid ejector on a first area of said substrate;

disposing the barrier layer over a second area that surrounds the first area, wherein the barrier layer surrounds said fluid ejector;

~~a substrate having a first area surrounded by said second area;~~

coupling said barrier layer to said substrate in the second area with an anchor means; and encapsulating the anchor means with the substrate and the barrier layer.

46. (Previously Presented) The method of claim 45, wherein said anchor means includes an anchor member extending from said substrate and encompassed by said barrier layer, wherein said anchor member has a concave and curved side wall.